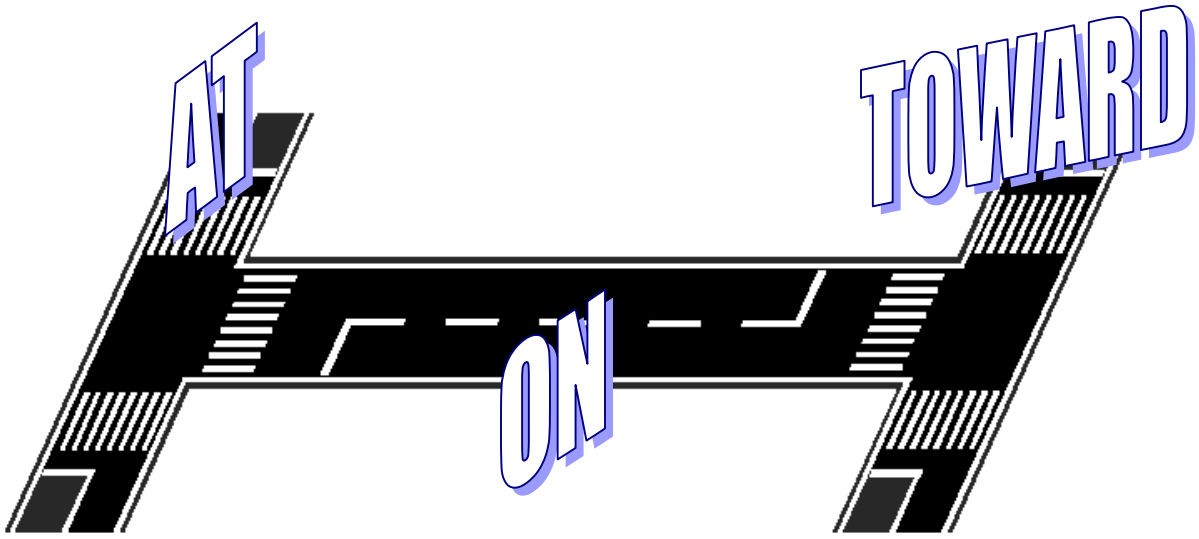
The On/At Method: How to Describe the Location of an LRIP Project



Wisconsin Department of Transportation

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What – The On/At system is a standard way to identify the location of a roadway segment (e.g. your LRIP project). The On/At system replaces the "From/To" system that was used by WisDOT for many years. The Wisconsin Information System for Local Roads (WISLR) also uses On/At to describe the location of roadway attributes such as pavement conditions.

Who and When – Beginning with the 2004-2005 program cycle, LRIP applicants will be required to use the On/At system to identify the location of projects requesting funding through the Local Roads Improvement Program (LRIP). Program applicants will be required to use On/At to identify the location of their LRIP project in their LRIP Project Application form.

Why – First, the On/At system provides a consistent way to describe the location of a roadway segment. There is a need for a standard approach since WisDOT receives over 1,200 project applications during a typical LRIP cycle. The uniform approach used by the Local Roads Improvement Program is the same method used by WISLR. LRIP data will now use the same language as WISLR and will facilitate data exchanges between the two systems.

Second, the On/At system is structured so that roadway information can easily be entered into a Geographic Information System (GIS). GIS will provide LRIP staff with mapping and analysis tools for enhanced program management purposes.

How – This manual illustrates how to use the On/At method to describe the location of a roadway segment. The manual was originally developed to assist communities in describing the location of pavement ratings stored in the Wisconsin Information System for Local Roads (WISLR) and illustrates two ways to describe a roadway segment with a pavement rating of "8". While the manual discusses On/At in the context of pavement ratings, the examples illustrate how you should use On/At to describe the location of the roadway segment you propose to improve with LRIP funds.

On/At is a simple method that only takes a few minutes to introduce and can be quickly used to identify most roadway situations. There are some more difficult situations that you may come across (such as cul-de-sacs with islands) and guidance for these roadways is also provided in this manual.

The On/At method is an easy system to understand if your LRIP project begins and ends at existing intersections. Lets say you want to improve First Street between Park Street and Oak Avenue. The "On Route" (or the roadway you want to describe) is First Street, the "At Route" (or beginning point of the segment) is Park Street, and the "Towards Route" (or in this case the endpoint of the segment) is Oak Avenue.

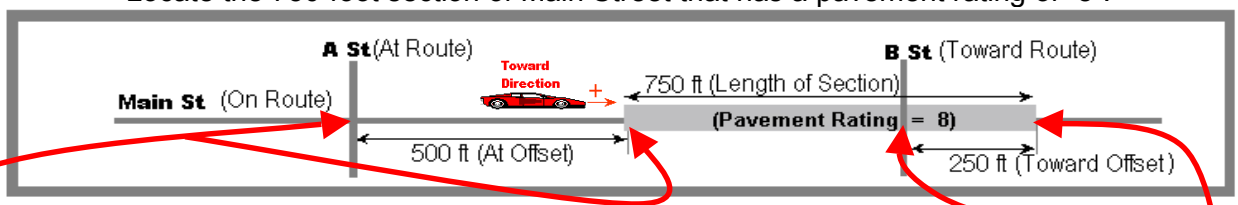
If your project doesn't begin AND end at existing intersections, "offsets" are used to describe the distances from the existing intersections. The following pages provide more detail using offsets. Please contact your county highway commissioner if you have questions on how to use On/At to describe your LRIP project.

The On/At method helps you define the location of a roadway using a standardized format. **On**, **At** and **Toward** represent the reference points on the road that locate your data. Simply put, to identify a segment of roadway, you must identify the road name, plus the start and end-points for that section.

DEFINITIONS	
On Route	The road that you will rate pavement on.
At Route	The intersection that defines where you will begin to measure.
At Offset	The distance from the **At Route** intersection to the beginning point of the section you wish to locate.
Toward Route	The intersection that assists in locating the endpoint of the section you wish to identify.
Toward Offset	The distance from the **Toward Route** intersection to the endpoint of the section you wish to locate.
Toward Direction 	The direction going *from* the **At Route** *in the direction of* the **Toward Route**. The **Toward Direction** represents the positive **(+)** direction for locating At and Toward Offset measurements (see **(+)** and **(–)** offsets below).
Positive Offset (+)	An offset measured from an At or Toward route intersection is positive **(+)** when it represents a distance in the **Toward Direction**.
Negative Offset (–)	An offset measured from an At or Toward route intersection is negative **(–)** when it represents distance in a direction *opposite* the **Toward Direction**.
Length	The length of the section you are locating.

Example A: Use of Positive Offsets

Locate the 750-foot section of Main Street that has a pavement rating of "8".



1. Identify the **On Route = Main Street.**
2. Identify the **At Route = "A" Street.**
3. Identify the **Toward Route = "B" Street.** (Defines the Toward Direction ).

Offsets: How and When to Use Them

If the pavement rating section does not *begin or end* at an intersection, then use offsets to define the point or points where your pavement ratings begin and end. If the pavement rating section *begins* at an intersection, the **At Offset = 0**. If the pavement rating section *ends* at an intersection, the **Toward Offset = 0**.

4. Determine the **At Offset = 500 feet.** This locates the beginning of the 8-rated pavement. It is the distance from the At Route to the beginning of the 8-rated pavement.
    - Notice that the At Offset is positive **(+)** since it represents distance from the At Route in the same direction as the **Toward Direction**.
5. Determine the **Length = 750 feet. You've now successfully located the 8-rated pavement.**

–OR–

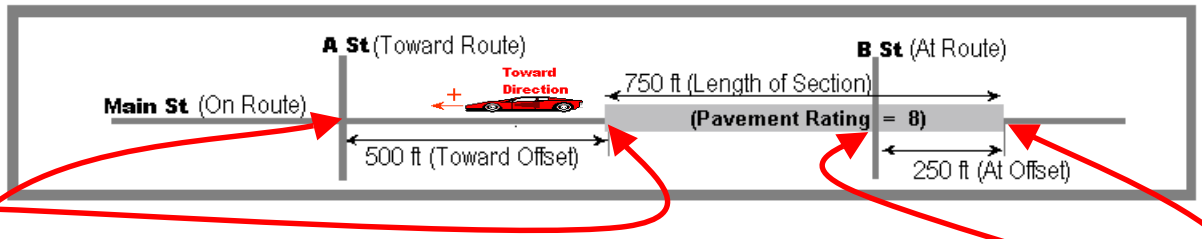
6. Determine the **Toward Offset.** This is the distance from the Toward Route to the end of the 8-rated pavement **= 250 feet.**

Note: Use either Length or the Toward Offset to locate the end of the pavement section (i.e., Toward Offset is not necessary when you provide Length, and vise versa: if you provide Toward Offset, it is not necessary to provide Length).

Example B: Use of Negative Offsets

With the On/At Method, you can measure in any direction. In Example B below, the At and Toward intersections are reversed from those in Example A. This example uses negative offsets to locate the 750-foot section of Main Street that has a pavement rating of "8".

Note: "A" Street is now the **Toward Route**; therefore, the offsets in the example below become negative since they are measured in the direction opposite the **Toward Direction**. (See steps below.)



1. Identify the **On Route = Main Street.**
2. Identify the **At Route = "B" Street.**
3. Identify the **Toward Route = "A" Street.** (This defines the positive direction of measurement 

).
4. Define and record the **At Offset = – 250.** Measure the length of the 8-rated pavement from "B" Street (the At Intersection) to the start of the 8-rated pavement. *This equals –250 feet.*

    - Notice the At Offset is negative **(–)** since it represents distance in the direction opposite the Toward Direction; so record the offset as –250 feet.

You can finish your measurement using *either* the Length, *or* the Toward Offset of the section.

5. Determine the length of the 8-rated pavement section **(Length = 750 feet)**.

You've now successfully located the 8-rated pavement.

–OR–

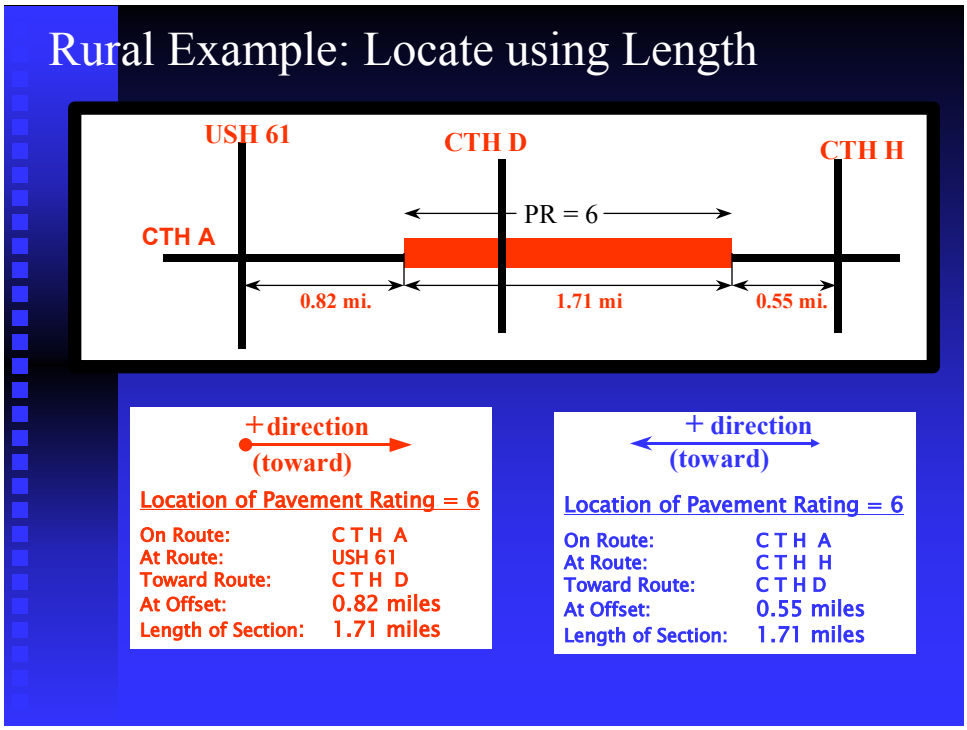
6. **Toward Offset:** This is the distance from the Toward Route ("A" Street) to the end of the 8-rated section of pavement. ***This equals –500 feet***.

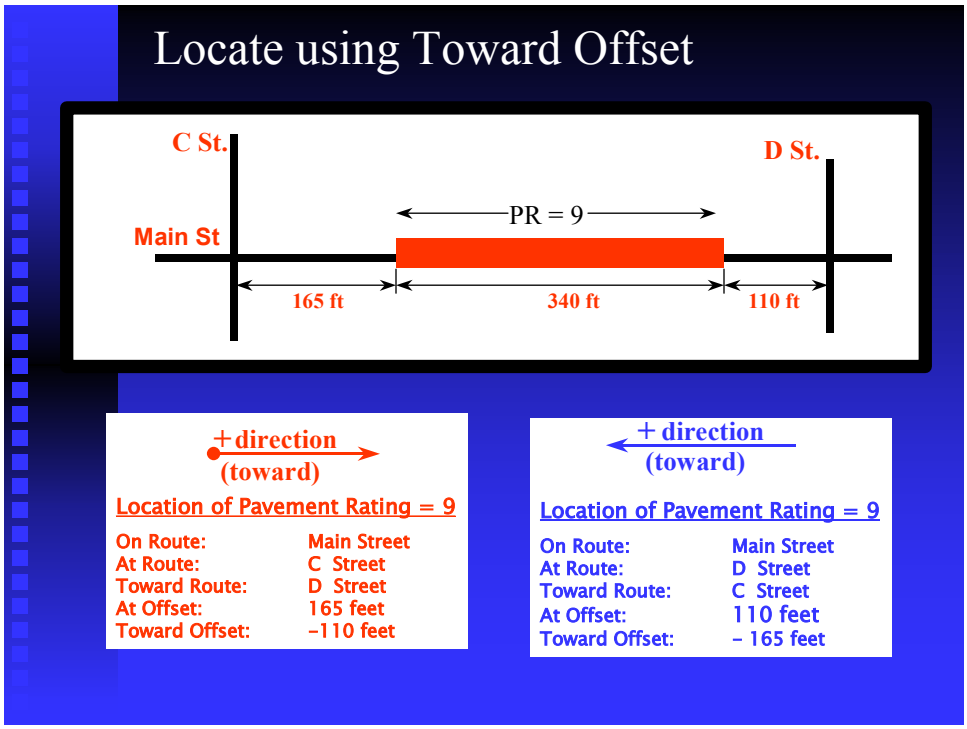
    - Notice the Toward Offset is negative **(–)** since it represents distance in the direction *opposite* the Toward Direction; so record the offset as –500 feet.

Note: Use either Length or the Toward Offset to locate the end of the pavement section (i.e., Toward Offset is not necessary when you provide Length, and vise versa: if you provide Toward Offset, it is not necessary to provide Length).

ADDITIONAL EXAMPLES

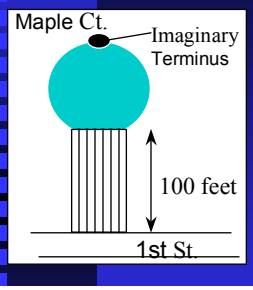
The following examples show alternate methods to locate pavement rating sections using either Length or Toward Offset. Keep in mind that if you provide length, it is not necessary to provide Toward Offset, and vise versa.





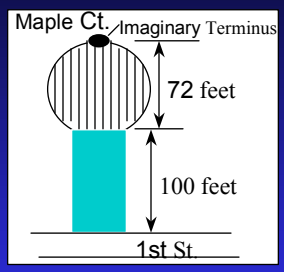
Cul-de-sac without an Island

= Area to locate



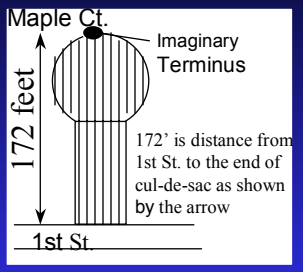
Example 1

On Route: Maple Ct.
At Route: 1st St.
Toward Route: Terminus
At Offset: 0 feet
Toward Offset: *
Length of Section: 100 feet



Example 2

On Route: Maple Ct.
At Route : 1st St.
Toward Route: Terminus
At Offset: +100 feet
Toward Offset: *
Length of Section: 72 feet



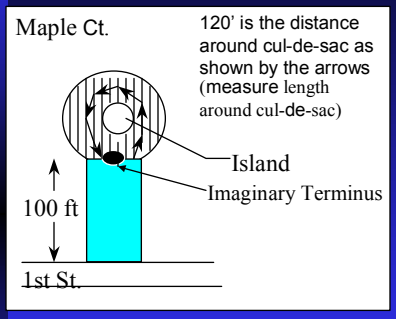
Example 3

On Route: Maple Ct.
At Route : 1st St.
Toward Route: Terminus At Offset: 0 feet
Toward Offset: *
Length of Section: 172 feet

* Because Length of Section was provided, Toward Offset was not necessary

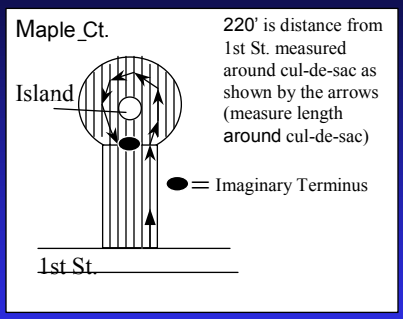
Cul-de-sac with an Island

= Area to locate



Example 1

On Route: Maple Ct.
At Route : 1st St.
Toward Route: Terminus
At Offset: 100 feet
Toward Offset: *
Length of Section: 120 feet



Example 2

On Route: Maple Ct.
At Route : 1st St.
Toward Route: Terminus
At Offset: 0 feet
Toward Offset: *
Length of Section: 220 feet

* Because Length of Section was provided, Towards Offset was not necessary

STANDARDIZED ABBREVIATIONS

Full Name	Abbreviation
Avenue	Ave
Boulevard	Blvd
Circle	Cir
County Trunk Highway	CTH
Court	Ct
Drive	Dr
East	E
Highway	Hwy
Interstate Highway	IH
Lane	La
North	N
Northeast	NE
Northwest	NW
Parkway	Pkwy
Place	Pl
Road	Rd
Route	Rte
South	S
Southeast	SE
Southwest	SW
Street	St
State Trunk Highway	STH
Terrace	Terr
Trail	Tr
US Highway	USH
West	W